Defects
Defects are products or services that are out of specification. They need extra effort or resources to fix and lead directly to increased costs and lost time, either through repairs or having to start over.

Eliminating the 8 Wastes of Lean with Simulation Software
What exactly is waste?
Waste, or Muda, is defined in the Toyota Production System (TPS) as anything that doesn’t increase value for your customers. When waste is removed, processes are streamlined, valuable time and costs are saved and customer satisfaction is improved.

There are eight common types of waste, but did you know that simulation software like SIMUL8 can help you to discover and eliminate these in your organization?

Together, simulation and Lean principles provide a framework to quickly test process improvements and pinpoint approaches that will effectively reduce waste.

Defects
Overproduction
Waiting
Not Utilizing Talent
Transportation
Inventory Excess
Motion Waste
Excess Processing

Waiting occurs whenever items aren’t in transport or being processed. For example, employees wait for materials, equipment waits for maintenance, or work in process waits for the employee to return.

Overproduction, where production exceeds customer demand, is considered the most harmful waste as it itself creates additional waste including excess inventory and transportation.

Transportation occurs whenever products are transported from one location to another. This can increase the risk of damages, additional waiting time and costs.

Inventory excess
Inventory, such as raw materials, work-in-progress or goods which are sitting idle, is considered waste as it hasn’t yet contributed value to the end customer.

Motion waste
Unnecessary motion can occur due to inefficient layouts or searching for mislaid items. It can also increase the risk of damage to equipment or cause employee injuries.

Excess processing
Excess processing is any activity that isn’t needed to produce a functioning product or service and can occur due to unnecessarily drawn-out processes.

Why is simulation software a key tool for Lean projects?
With simulation, you will shorten the time to project completion, strengthen stakeholder buy-in, and guarantee the impact of proposed changes even before you pilot.

- Identify under-performing, missing or unnecessary processes
- Shorten time to project completion through rapid simulation modeling and results
- Perform risk-free experimentation to understand impact of changes on performance
- Utilize employee knowledge across the business and strengthen stakeholder buy-in

A powerful, analytical approach for collaborative change

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